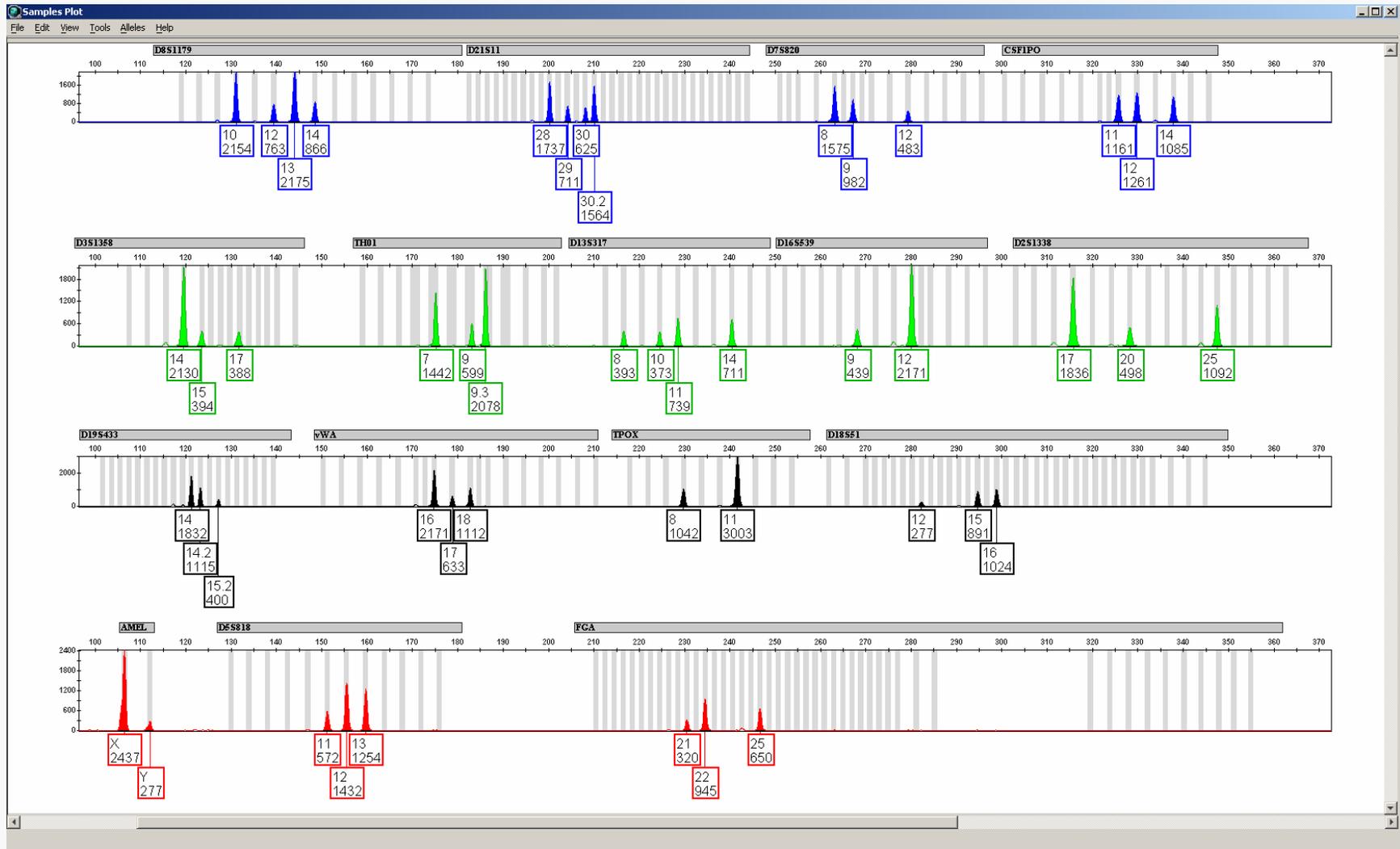


# Example



# Main Screen View

Sample ID	D8S1179	D21S11	D7S820	CSF1PO	D3S1358	TH01	D13S317	D16S539	D2S1338	D19S433	vWA	TPOX	D18S51	Amel	D5S818	FGA
Ladder_Identifier	8, 9, 10, 11, 12	24, 24.2, 25, 26, 27	6, 7, 8, 9	6, 7, 8, 9	12, 13, 14	4, 5, 6, 7	8, 9, 10, 11	5, 8, 9, 10	15, 16, 17	9, 10, 11, 12	11, 12, 13	6, 7, 8, 9	7, 9, 10, 11	X, Y	7, 8, 9, 10	17, 18, 19
Reagent Blank for Q's																
QA002 for Q's	13, 14	29, 30.2	10, 11	10, 11	15, 16	6, 7	11	11, 12	16, 19	13, 14	14, 18	8, 11	14, 15	X, Y	12, 13	22, 26
Vaginal Swab	10, 12, 13, 14	28, 29, 30, 30.2, 33	8, 9, 12	11, 12, 14	14, 15, 17	7, 9, 9.3	8, 10, 11, 14	9, 12, 14	17, 20, 25	14, 14.2, 15.2	16, 17, 18	8, 11, 12	12, 15, 16	X, Y	11, 12, 13	21, 22, 25
Reagent Blank for K's																
QA002 for K's	13, 14	29, 30.2	10, 11	10, 11	15, 16	6	11	11, 12	16, 19	13, 14	14, 18	8, 11	14, 15	X, Y	12, 13	22, 26
Victim	10, 13	28, 30.2	8, 9	11, 14	14	7, 9.3	11, 14	12	17, 25	14, 14.2	16, 18	11	15, 16	X	12, 13	22, 25
Suspect	12, 14	29, 30	8, 12	12	15, 17	9, 9.3	8, 10	9, 12	17, 20	14, 15.2	16, 17	8	12, 16	X, Y	11, 12	21, 22
Pos Con	13	30	10, 11	10, 12	14, 15	8, 9.3	11	11, 12	19, 23	14, 15	17, 18	8	15, 19	X	11	23, 24
Neg Con		7														

# QA Check

v 2.1.3 - DNA_DataAnalysis																
DNA_DataAnalysis																
<b>Ladders and Controls</b>																
Sample ID	D8S1179	D21S11	D7S820	CSF1PO	D3S1358	TH01	D13S317	D16S539	D2S1338	D19S433	vWA	TPOX	D18S51	Amel	D5S818	FGA
Ladder_Identifier	8, 9, 10, 11, 12	24, 24.2, 25, 26, 27	6, 7, 8, 9	6, 7, 8, 9	12, 13, 14	4, 5, 6, 7	8, 9, 10, 11	5, 8, 9, 10	15, 16, 17	9, 10, 11, 12	11, 12, 13	6, 7, 8, 9	7, 9, 10, 11	X, Y	7, 8, 9, 10	17, 18, 19
Reagent Blank for Q's																
QA002 for Q's	13, 14	29, 30.2	10, 11	10, 11	15, 16	6, 7	11	11, 12	16, 19	13, 14	14, 18	8, 11	14, 15	X, Y	12, 13	22, 26
Reagent Blank for K's																
QA002 for K's	13, 14	29, 30.2	10, 11	10, 11	15, 16	6	11	11, 12	16, 19	13, 14	14, 18	8, 11	14, 15	X, Y	12, 13	22, 26
Pos Con	13	30	10, 11	10, 12	14, 15	8, 9.3	11	11, 12	19, 23	14, 15	17, 18	8	15, 19	X	11	23, 24
Neg Con		7														
	Ladders, Controls and QA_Profiles are within established parameters															
	Evaluate Ladders, Controls and QA_Profiles															

# Samples View

Sample ID	D8S1179	D21S11	D7S820	CSF1PO	D3S1358	TH01	D13S317	D16S539	D2S1338	D19S433	vWA	TPOX	D18S51	Amel	D5S818	FGA
Vaginal Swab	10, 12, 13, 14	28, 29, 30, 30.2, 33	8, 9, 12	11, 12, 14	14, 15, 17	7, 9, 9.3	8, 10, 11, 14	9, 12, 14	17, 20, 25	14, 14.2, 15.2	16, 17, 18	8, 11, 12	12, 15, 16	X, Y	11, 12, 13	21, 22, 25
Victim	10, 13	28, 30.2	8, 9	11, 14	14	7, 9.3	11, 14	12	17, 25	14, 14.2	16, 18	11	15, 16	X	12, 13	22, 25
Suspect	12, 14	29, 30	8, 12	12	15, 17	9, 9.3	8, 10	9, 12	17, 20	14, 15.2	16, 17	8	12, 16	X, Y	11, 12	21, 22

# Matching View

v 2.1.3 - DNA\_DataAnalysis

DNA\_DataAnalysis

Type a question for help

<b>REFERENCE FOR MATCH: Suspect</b>	12, 14	29, 30	8, 12	12	15, 17	9, 9.3	8, 10	9, 12	17, 20	14, 15.2	16, 17	8	12, 16	X, Y	11, 12	21, 22
Sample ID	D8S1179	D21S11	D7S820	CSF1PO	D3S1358	TH01	D13S317	D16S539	D2S1338	D19S433	vWA	TPOX	D18S51	Amel	D5S818	FGA
Vaginal Swab	10, 12, 13, 14	28, 29, 30, 30.2, 33	8, 9, 12	11, 12, 14	14, 15, 17	7, 9, 9.3	8, 10, 11, 14	9, 12, 14	17, 20, 25	14, 14.2, 15.2	16, 17, 18	8, 11, 12	12, 15, 16	X, Y	11, 12, 13	21, 22, 25
Victim	10, 13	28, 30.2	8, 9	11, 14	14	7, 9.3	11, 14	12	17, 25	14, 14.2	16, 18	11	15, 16	X	12, 13	22, 25
Suspect	12, 14	29, 30	8, 12	12	15, 17	9, 9.3	8, 10	9, 12	17, 20	14, 15.2	16, 17	8	12, 16	X, Y	11, 12	21, 22

Single-Source Reference

Single-Source Reference EXACTLY MATCHES the Profile

Single-Source Reference IS INCLUDED in the Profile

Single-Source Reference is not included in the Profile

Analyst\_Data /

Ready

NUM

# Foreign Allele View

v 2.1.3 - DNA_DataAnalysis																
DNA_DataAnalysis																
<b>Combined References - Alleles</b>	10, 12, 13, 14	28, 29, 30, 30.2	8, 9, 12	11, 12, 14	14, 15, 17	7, 9, 9.3	8, 10, 11, 14	9, 12	17, 20, 25	14, 14.2, 15.2	16, 17, 18	8, 11	12, 15, 16		11, 12, 13	21, 22, 25
Sample ID	D8S1179	D21S11	D7S820	CSF1PO	D3S1358	TH01	D13S317	D16S539	D2S1338	D19S433	vWA	TPOX	D18S51	Amel	D5S818	FGA
Vaginal Swab	10, 12, 13, 14	28, 29, 30, 30.2, 33	8, 9, 12	11, 12, 14	14, 15, 17	7, 9, 9.3	8, 10, 11, 14	9, 12, 14	17, 20, 25	14, 14.2, 15.2	16, 17, 18	8, 11, 12	12, 15, 16	X, Y	11, 12, 13	21, 22, 25
Victim	10, 13	28, 30.2	8, 9	11, 14	14	7, 9.3	11, 14	12	17, 25	14, 14.2	16, 18	11	15, 16	X	12, 13	22, 25
Suspect	12, 14	29, 30	8, 12	12	15, 17	9, 9.3	8, 10	9, 12	17, 20	14, 15.2	16, 17	8	12, 16	X, Y	11, 12	21, 22
	Combined References															
	Profile contains alleles not present in the Combined References															
	Profiles includes Combined References															

# Mixture Interpretation Tool

2 or 3 Contributor Mixture Interpretation

Close Vaginal Swab

2 3 D851179

Alleles 10, 12, 13, 14

RFUs 2154, 763, 2175, 866

BPs 131.07, 139.42, 143.98, 148.47

Close Re-set

10	12	13	14
2154	763	2175	866

P1

P2

P3

Set Ref1 Ref2 Ref3 Ref4 Ref5 Ref6

PHr 0.5

mPH

100

mP

0

Apply Ref1 Ref2 Ref3 Ref4 Ref5 Ref6

No references are selected; all peak height ratios are  $\geq (0.5)$ ;

For a 2-contributor 4-allele mixture of types AB & CD: 3-combinations: Alleles (RFUs): 10 (2154), 12 (763), 13 (2175), 14 (866)

10, 13 (phr = 0.99;  $p = 0.73$ ); 12, 14 (phr = 0.88;  $p = 0.27$ )

# User Deconvoluted Profiles Added

v 2.1.3 - DNA\_DataAnalysis

DNA\_DataAnalysis

Type a question for help

Sample ID	D8S1179	D21S11	D7S820	CSF1PO	D3S1358	TH01	D13S317	D16S539	D2S1338	D19S433	vWA	TPOX	D18S51	Amel	D5S818	FGA
Vaginal Swab	10, 12, 13, 14	28, 29, 30, 30.2	8, 9, 12	11, 12, 14	14, 15, 17	7, 9, 9.3	8, 10, 11, 14	9, 12	17, 20, 25	14, 14.2, 15.2	16, 17, 18	8, 11	12, 15, 16	X, Y	11, 12, 13	21, 22, 25
User defined 1: Vaginal Swab ...	10, 13	28, 30.2	8, 9	11, 14	14	7, 9.3	11, 14	12	17, 25	14, 14.2	16, 18	11	15, 16	X	12, 13	22, 25
User defined 2: Vaginal Swab ...	12, 14	29, 30	8, 12	12	15, 17	7, 9, 9.3	8, 10	9, 12	17, 20	14, 15.2	16, 17	8	12, Any	X, Y	11, 12	21, 22
Victim	10, 13	28, 30.2	8, 9	11, 14	14	7, 9.3	11, 14	12	17, 25	14, 14.2	16, 18	11	15, 16	X	12, 13	22, 25
Suspect	12, 14	29, 30	8, 12	12	15, 17	9, 9.3	8, 10	9, 12	17, 20	14, 15.2	16, 17	8	12, 16	X, Y	11, 12	21, 22

Ready

NUM

# Single Source Stats

v 2.1.3 - DNA\_DataAnalysis

DNA\_DataAnalysis

Single Source

User defined 1: Vaginal Swab ... ⊖ 0.01

Locus	Locus Profile	Allele1	Allele2	Frequency: Unrelated	Frequency: Full siblings	Frequency: Parents and Offspring	Frequency: Half Sibs, Uncles, Neph's	Frequency: First Cousins	Database Size
D8S1179	10, 13	10 0.1020 0.0250 0.0936	13 0.3393 0.2222 0.3251	0.069217 0.011110 0.060859	0.377629 0.314578 0.369890	0.220650 0.123600 0.209350	0.144934 0.067355 0.135104	0.107075 0.039233 0.097982	1
D21S11	28, 30.2	28 0.1658 0.2151 0.0690	30.2 0.0383 0.0140 0.0320	0.012700 0.006023 0.004416	0.304200 0.308781 0.276354	0.102050 0.114550 0.050500	0.057375 0.060286 0.027458	0.035038 0.033155 0.015937	
D7S820	8, 9	8 0.1626	9 0.1478	0.048065	0.339616	0.155200	0.101632	0.074848	
		Cauc		2.5398E+21	5.7180E+06	1.7401E+11	2.2536E+14	6.5714E+16	
		Black	1 in ...	8.9423E+22	9.3134E+06	1.0105E+12	1.6419E+15	6.5443E+17	
		Hisp		6.0577E+22	8.3158E+06	1.5833E+12	2.3061E+15	8.0601E+17	
		Cauc		2.5 sextillion	5.71 million	174 billion	225 trillion	65 quadrillion	
		Black	1 in ...	89 sextillion	9.31 million	1.01 trillion	1.6 quadrillion	650 quadrillion	
		Hisp		60 sextillion	8.31 million	1.58 trillion	2.3 quadrillion	800 quadrillion	
FBI Caucasian / Black / Hispanic allele frequencies									
Calculations are not based on database size									

Analyst\_Data / Mix\_Interp / Freq\_SS /

Ready

# Mixture Stats

v 2.1.3 - DNA\_DataAnalysis

DNA\_DataAnalysis

Two Source Mixture

User defined 2: Vaginal Swab ... ⊖ 0.01

Locus	Locus Profile	Allele 1	Allele 2	Allele 3	Allele 4	Type 1	Type 2	Type 3	Type 4	Type 5	Sum of
D8S1179	12, 14	12	14				12   14				
		0.1454	0.2015				0.0586				0.0586
		0.1083	0.3333				0.0722				0.0722
		0.1207	0.2463				0.0595				0.0595
TH01	7, 9, 9.3	0.4258	0.1268				0.1080				0.1080
		7	9	9.3		9   9	7   9	9   9.3			
		0.1724	0.1650	0.3054		0.0286	0.0569	0.1008			0.1863
		0.4405	0.1452	0.1048		0.0223	0.1279	0.0304			0.1807
		0.3373	0.1029	0.2416		0.0115	0.0694	0.0497			0.1306
D13S317	8, 10	8	10				8   10				
D18S51	12	12								12   Any	
		0.1276								0.2400	0.2400
		0.0583								0.1138	0.1138
		0.1059								0.2015	0.2015
Amel	X, Y	X	Y								
Cauc		1.9342E+16									
Black	1 in ...	3.8847E+18									
Hisp		6.7370E+15									
Cauc		19 quadrillion									
Black	1 in ...	3.8 quintillion									
Hisp		6.7 quadrillion									

FBI Caucasian / Black / Hispanic allele frequencies

Analyst\_Data / Mix\_Interp / Freq\_SS / Freq\_Mix /

Ready

# CPI Stats

v 2.1.3 - DNA\_DataAnalysis

DNA\_DataAnalysis

Probability of Inclusion  
Vaginal Swab

Locus	Locus Profile	Allele 1	Allele 2	Allele 3	Allele 4	Allele 5	Allele 6	Allele 7	Allele 8	PE	PI
D8S1179	10, 12, 13, 14	10	12	13	14						
		0.1020	0.1454	0.3393	0.2015					0.3787	0.6213
		0.0250	0.1083	0.2222	0.3333					0.5256	0.4744
		0.0936	0.1207	0.3251	0.2463					0.3827	0.6173
D21S11	28, 29, 30, 30.2, 33	28	29	30	30.2	33					
		0.1658	0.1811	0.2321	0.0383	0.0128				0.6030	0.3970
		0.2151	0.1899	0.1788	0.0140	0.0140				0.6257	0.3743
		0.0690	0.2044	0.3301	0.0320	0.0123				0.5804	0.4196
D7S820	8, 9, 12	8	9	12							
		0.1626	0.1478	0.1404						0.7968	0.2032
		0.1738	0.1571	0.0905						0.8224	0.1776

Cauc		3.0252E+07	FBI Caucasian / Black / Hispanic allele frequencies
Black	1 in ...	1.8361E+09	
Hisp		5.3625E+07	
Cauc		30.2 million	
Black	1 in ...	1.83 billion	
Hisp		53.6 million	

Ready

# LR Stats

v 2.1.3 - DNA\_DataAnalysis

DNA\_DataAnalysis

Likelihood Ratio

Vaginal Swab

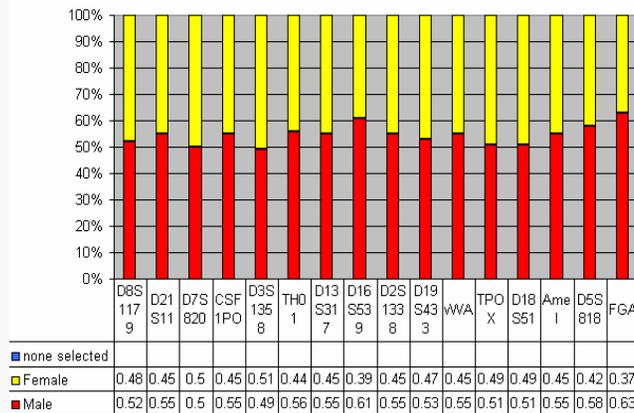
Locus	Locus Profile	21	22	25				1 Px	2 Px	1	C1	C2
<b>D8S1179</b>	10, 12, 13, 14	10	12	13	14			P0( $\emptyset$   10,12,13,14) + P1(12,14   10,12,13,14)				
		0.1020	0.1454	0.3393	0.2015			17.1			1	0.0585962
		0.0250	0.1083	0.2222	0.3333			13.9			1	0.07219278
		0.0936	0.1207	0.3251	0.2463			16.8			1	0.05945682
<b>D21S11</b>	28, 29, 30, 30.2	28	29	30	30.2			P0( $\emptyset$   28,29,30,30.2) + P1(29,30   28,29,30,30.2)				
		0.1658	0.1811	0.2321	0.0383			11.9			1	0.08406662
		0.2151	0.1899	0.1788	0.0140			14.7			1	0.06790824
		0.0690	0.2044	0.3301	0.0320			7.41			1	0.13494488
<b>D7S820</b>	8, 9, 12	8	9	12				P0( $\emptyset$   8,9,12) + P1(12   8,9,12)				
		0.1626	0.1478	0.1404				9.36			1	0.10687248
		0.1738	0.1571	0.0905				14.7			1	0.06808315
		0.0981	0.0479	0.1914				10.8			1	0.09252276
<b>FGA</b>	21, 22, 25	21	22	25				P0( $\emptyset$   21,22,25) + P1(21   21,22,25)				
		0.1735	0.1888	0.0689				8.37			1	0.11952415
		0.1250	0.2250	0.1000				10.3			1	0.096875
		0.1305	0.1773	0.1379				10.1			1	0.09929745
Cauc	1 in ...	2.0020E+14										
Black	1 in ...	3.0036E+16										
Hisp	1 in ...	1.0385E+14										
Cauc	1 in ...	200 trillion										
Black	1 in ...	30 quadrillion										
Hisp	1 in ...	103 trillion										

Analyst\_Data / Review\_Data / Mix\_Interp / L\_Ratio /

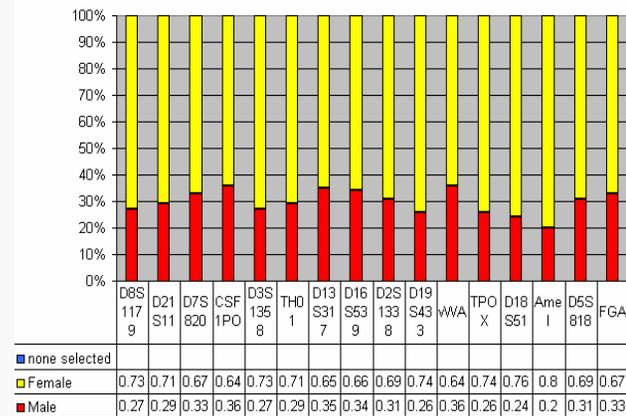
Ready

# Male + Female: 1:1, 1:2, 1:3, 1:10

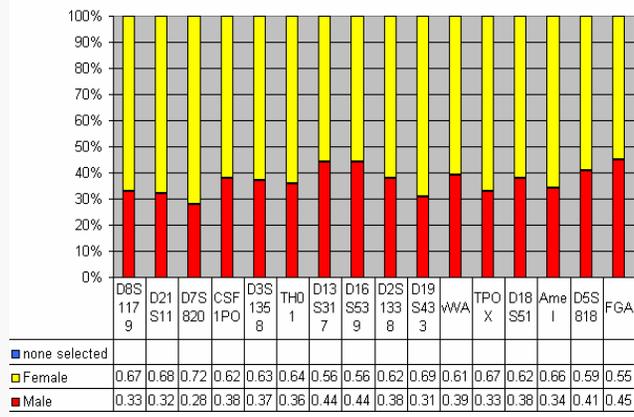
Male 1 Female 1



Male 1 Female 3



Male 1 Female 2



Male 1 Female 10

